



Kundehistorie – HOBAS PIPE USA

BRUKERFORUM 2023



Gurusoft Report

som
Produksjonsstøtteverktøy
for rør produksjon



HOBAS PIPE USA Inc

HOBAS Pipe USA, Inc. is a producer and supplier of corrosion resistant HOBAS centrifugally cast fiberglass reinforced polymer mortar pipe systems with product and process technology under license from Amiblu Holding GmbH



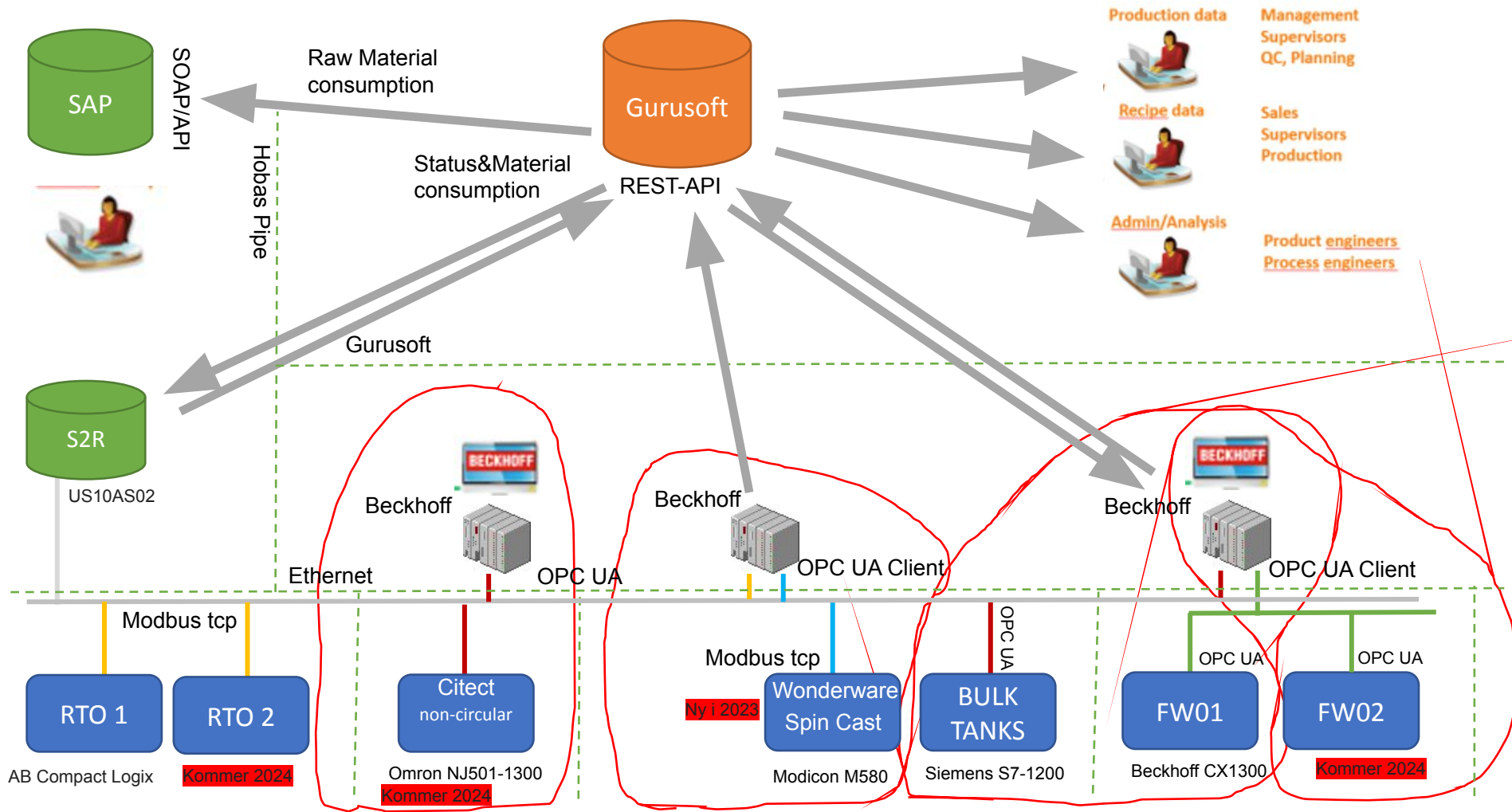
- Established in 1987 in Houston, TX
- Pipe production for water supply and sewage
- New production line for continuous filament winding in 2022



- Revenue: \$137,813,000
- Employees: 220
- HOBAS Pipe USA Inc has a strong market share in their industry

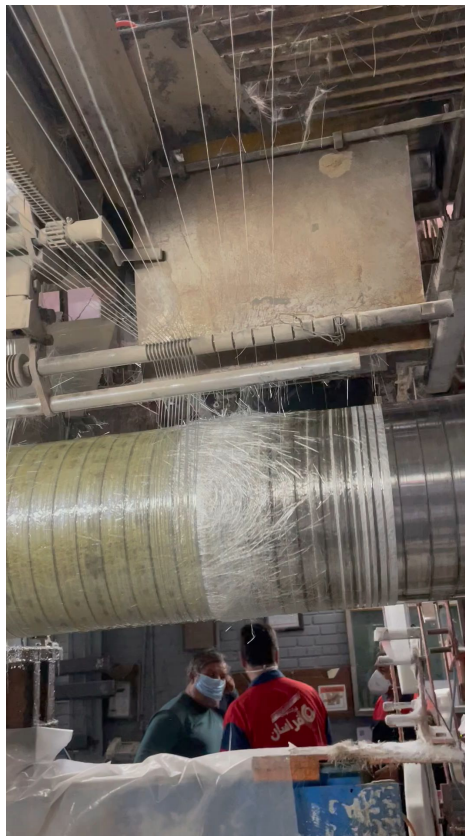


HOBAS PIPE - DATA FLOW



HOBAS PIPE USA – DATALOGGING

- Forbruk av alle råvarer logges og måles mot reseptverdier. Data logges pr time og pr rør.



HOBAS PIPE USA – DATALOGGING

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FW01 - Raw material usage actual vs recipe <<

	Liner					
	Resin 1			Chop 1		
	Recipe	Actual	Dev	Recipe	Actual	Dev
Hour ↑↓	lb ↑↓	lb ↑↓	% ↑↓	lb ↑↓	lb ↑↓	% ↑↓
0	123,7	145,5	17,6	57,7	57,7	0,0
1	119,3	140,3	17,7	55,7	55,7	-0,0
2	116,6	137,1	17,6	54,4	54,4	-0,0
3	116,2	136,7	17,7	54,2	54,2	-0,0

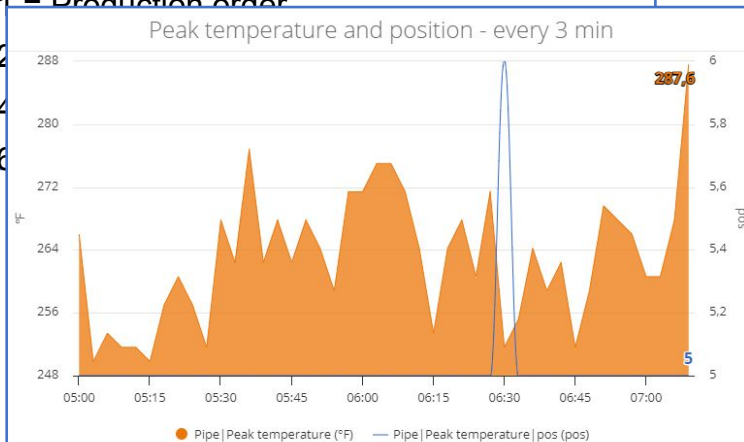
HOBAS PIPE USA – DATALOGGING

- Forbruk av alle råvarer logges og måles mot reseptverdier. Data logges pr time og pr rør.
- På alle råvarer logges det attributter som benyttes for søk og filtrering
- Produksjonsdata logges for kvalitetskontroll og beregning av nøkkeltall
- Utvalgte data logges i sann tid for remote produksjonsstøtte
- Eksport av data til SAP

- attrStr1..6 6 string-attributes
- attrInt1..6 6 whole numbers- attributes
- attrDouble1..6 6 flow- attributes
- attrBool1..5 5 boolean- attributes
- attrDt1..3 3 date- attributes (yyyyMMddHHmmss)

ATTRIBUTTER FOR HOBAS

- attrInt1 = Pipe number (american)
- attrStr1 = Production order
- attrStr2
- attrStr4
- attrStr6



HOBAS PIPE USA – DATALOGGING

- Manuelle målinger registreres i egne skjemaer
- Riktig skjema kan tas opp med barcodescanner
- Eller dropdown meny som viser registreringer

The image shows a screenshot of the Hobas Pipe USA data logging interface. The main window is titled "Measuring station" and contains search fields for "Search by pipe number" and "Search by SAP ID". The "Search by pipe number" field has a dropdown menu open, showing a list of pipe numbers with checkmarks next to them. The "Search by SAP ID" field has a "Search SAP" button. There is also a "Scan Barcode" button. The interface is overlaid on a background image of a pipe with a barcode and text.

Measuring station

Search by pipe number 2310313955

Search by SAP ID e.g 00000000011588259

Date/Time 2023-10-31

SIDE A

Outer diam 32.05

SIDE B

Outer diam 32.06

Measuring station

Search by pipe number e.g 221122200456

Search by SAP ID

2310313956 ✓

2310313955 ✓

2310313954 ✓

2310313953 ✓

2310313952 ✓

2310313951 ✓

2310313950 ✓

2310313949 ✓

2310313948 ✓

2310313947 ✓

Hobas Pipe USA

0009013156

1248365 P36-25-0046-EP-FWCE-PE

09-08-2022

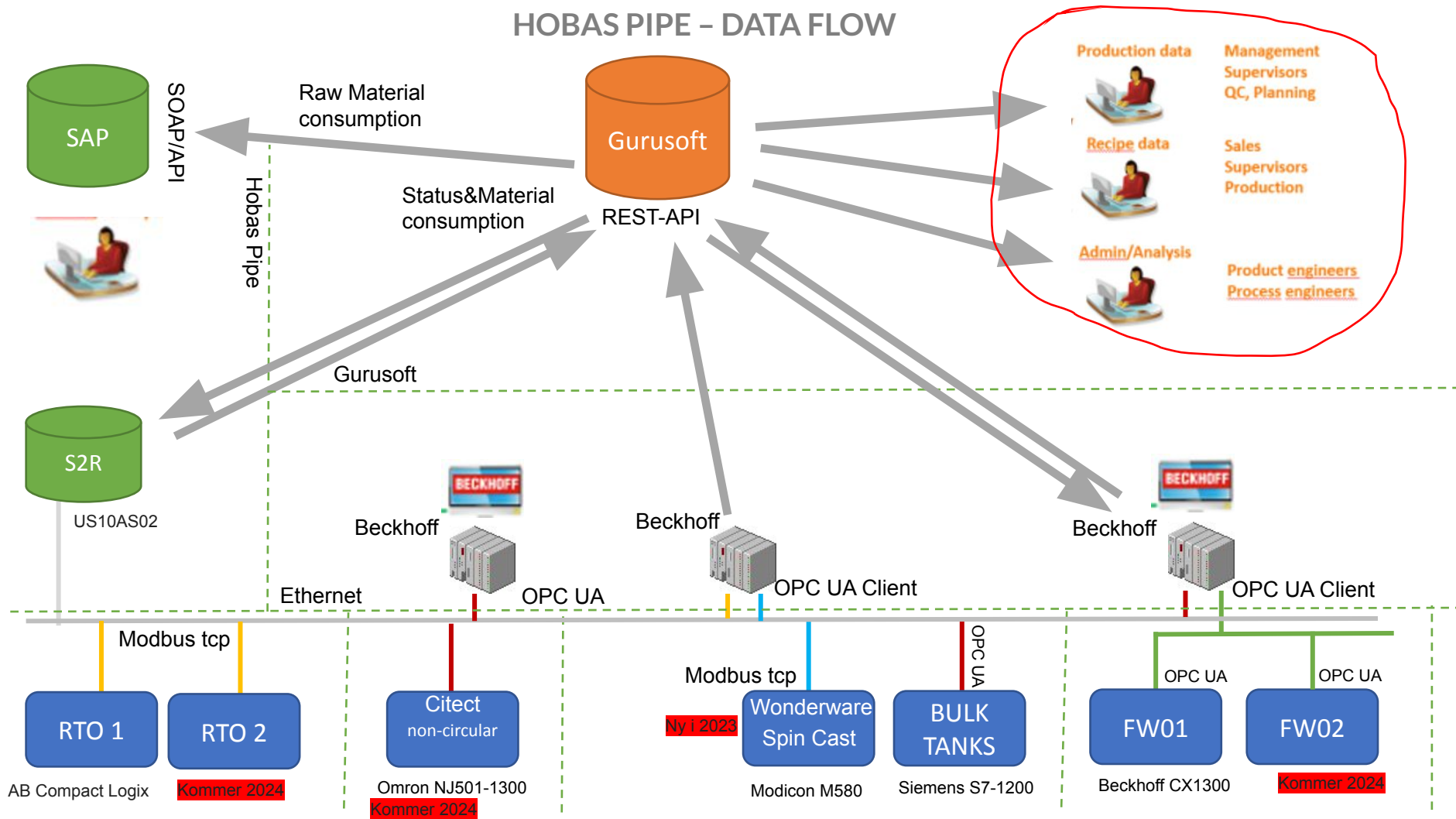
ASTM A53

DN 36

HOBAS

COIDE

HOBAS PIPE - DATA FLOW





Gurusoft AS
gurusoft

Resources

Reports

Search

Log exceeding

Data collection

Report admin

System admin

Status

Pipe Reports

Configuration

Product Specification

Hydro Tester

Measuring Station

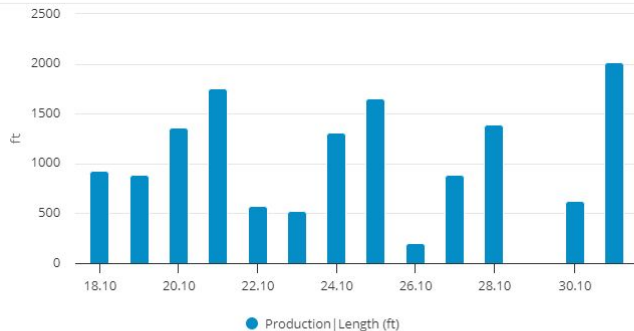


Production status

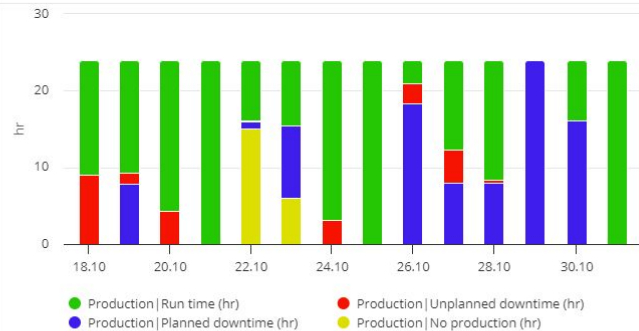
Production speed



Produced length - last two weeks



Machine status - last two weeks



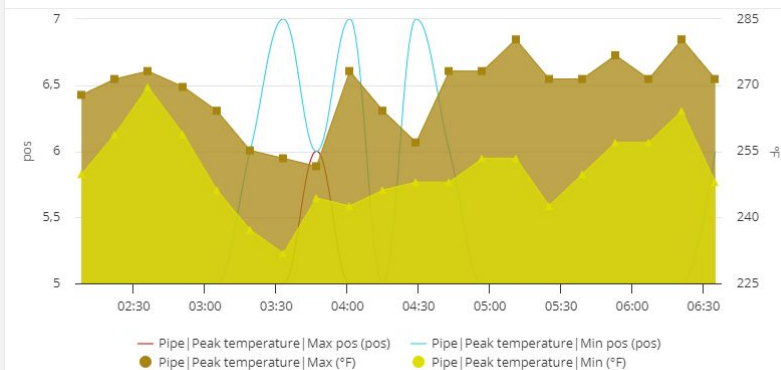
Key Performance Numbers

	Unit	Today	This week	Last week	So far this year
Produced Length	ft	512.1	2,636.5	5,954.4	295,603.9
Number of pipes	pcs	26	137	295	15,121
Production time	hr	6.0	31.9	83.7	4,481.3
Total capacity	%	100.0	100.0	78.0	78.1
Production efficiency when running	%	83.7	79.5	77.8	73.3
Quality of production	%	100.0	100.0	100.0	100.0

Raw material consumption

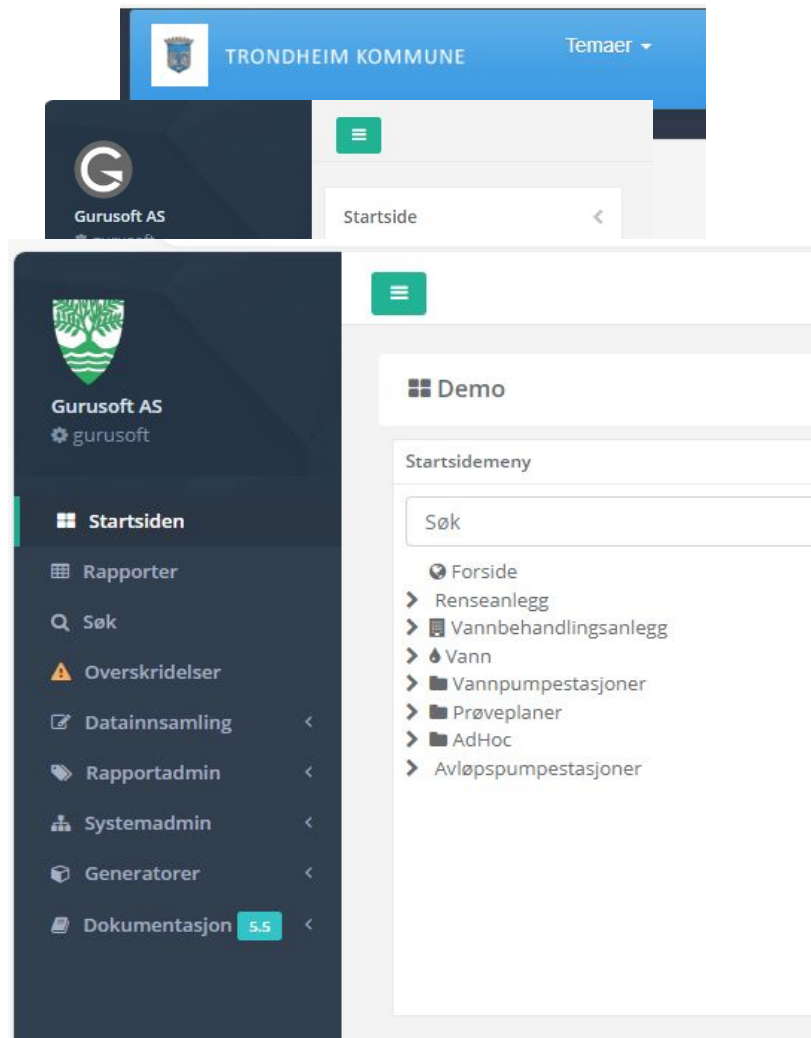
	Unit	Today	This week	Last week	So far this year
Resin consumption	lb	6,817	35,752	122,938	5,991,115
Chop consumption	lb	2,449	12,524	42,644	2,080,962
Hoop consumption	lb	3,113	16,071	54,976	2,865,395
Sand consumption	lb	19,352	96,751	320,973	14,919,322

Peak temperature and position for every pipe last 4 hours



Gurusoftware Startsider

- Startsider ble etablert for enklere å sette opp egne menyer med grafiske visninger og linker
- Dette senket brukerskelen og tilførte nye grafiske visninger til standard rapportene
- Ny venstre side meny gir nå muligheter for å legge til egne menypunkter
- I siste versjon av Dashboard er det nå kommet en egen statisk menybrikke
- Dette betyr at startside menyen slik vi kjenner den idag vil forsvinne

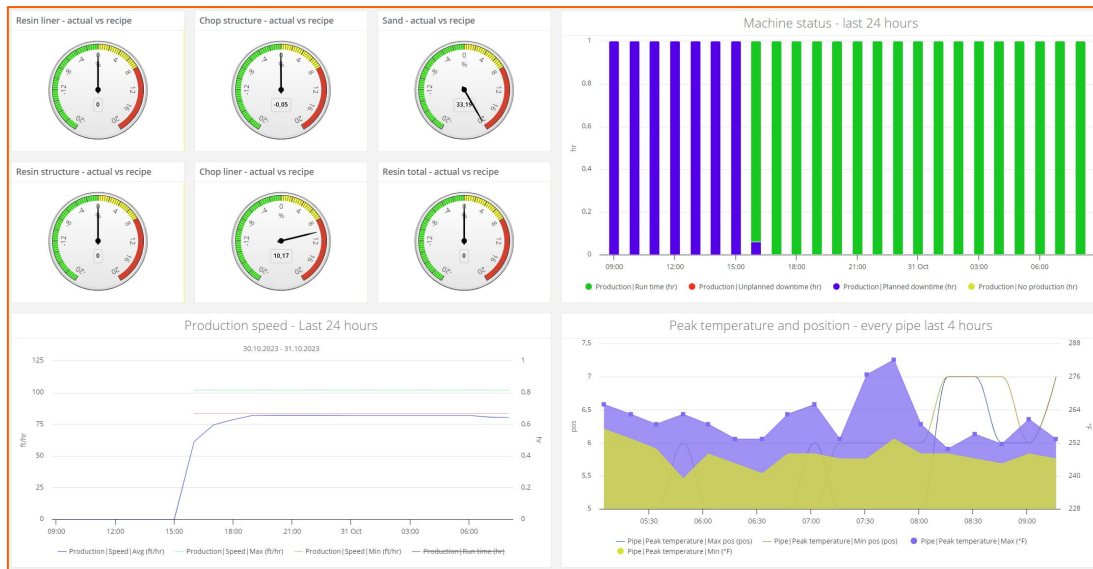


Gurusoft Dashbord

ALLE kunder bør lære seg å bruke vår Dashboard-generator

"A data dashboard is a tool many businesses use to track, analyze, and display data—usually to gain insight into the overall wellbeing of an organization, department, or specific process."

- Samler all viktig informasjon på et sted
- Ser ulike data i en sammenheng
- Visualiserer data på en god måte
- Hjelper til å ta raske og gode beslutninger



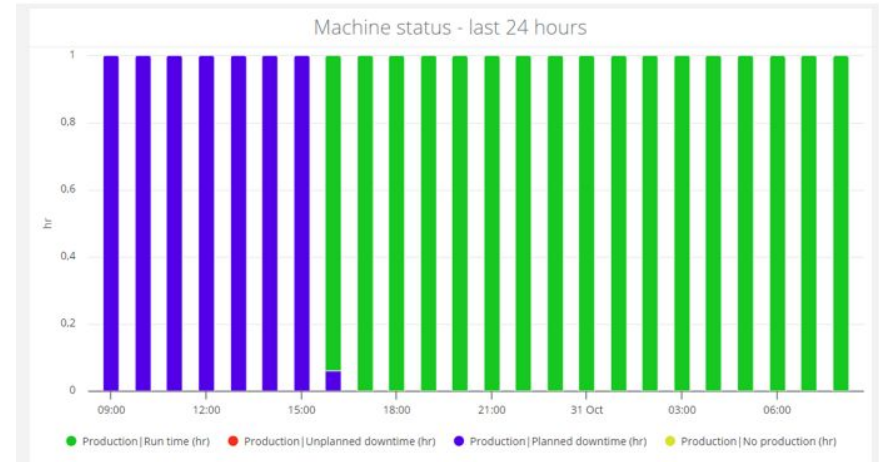
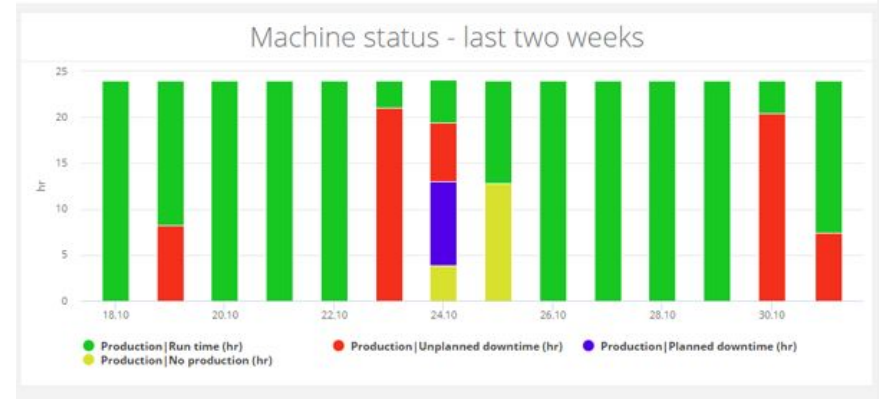
Gurusoft Dashbord – tips

1. Ulike brukere trenger ulik informasjon. Du må vite hvem som er mottager – lag heller flere dashbord



Gurusoft Dashbord – tips

1. Ulike brukere trenger ulik informasjon. Du må vite hvem som er mottager – lag heller flere dashbord
2. Prøv å lage enkle grafiske fremstillinger
3. Fjerne unødvendige tall. Å begrense informasjon er vanskelig



Gurusoft Dashbord – tips

1. Ulike brukere trenger ulik informasjon. Du må vite hvem som er mottager – lag heller flere dashbord
2. Prøv å lage enkle grafiske fremstillinger
3. Fjerne unødvendige tall. Å begrense informasjon er vanskelig
4. Legge inn grenseverdier for bedre visning. Men å sette grenser krever kunnskap



Hobas Pipe USA – Rapportering

- Gårdagens produksjon sendes ut pr mail hver morgen kl 07

Daily

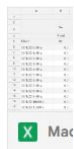


From G
til jmoles,



Autogene

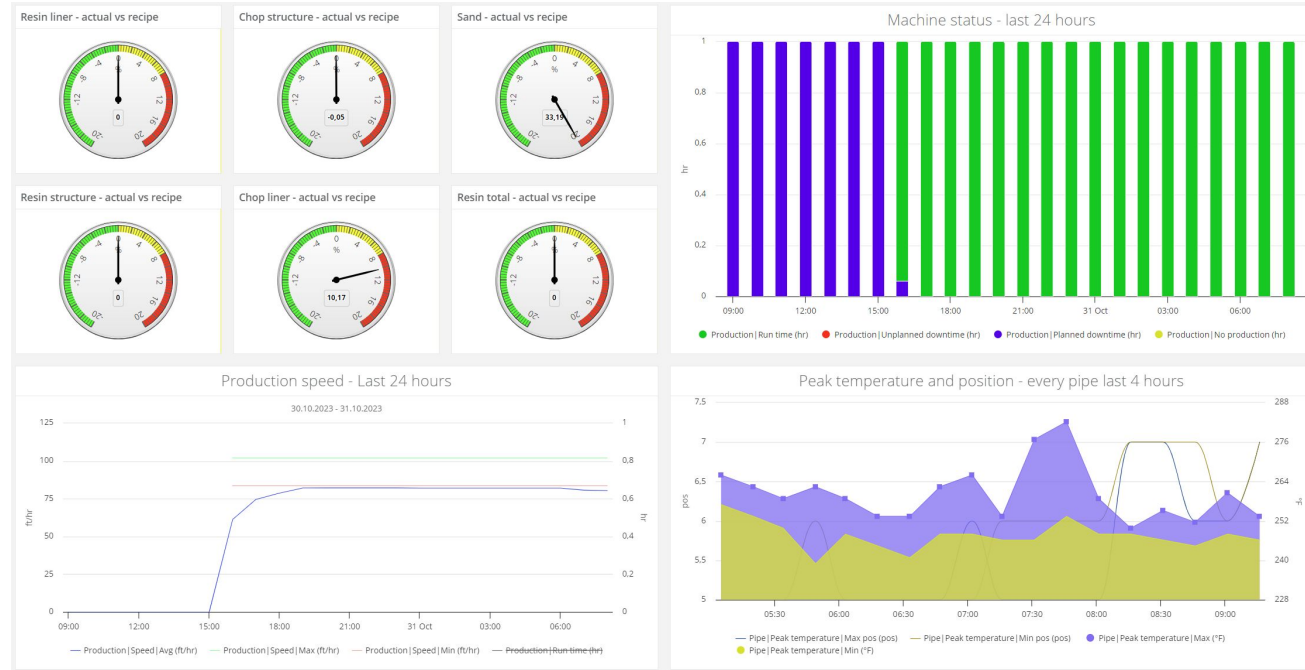
6 vedlegg



Minute	Production order	Pipe	Pipe							Pipe		Pipe						Peak temperature					
		Number	Sap	Number	Diameter	Pressure	Stiffness	Type	Length	Weight	Pipe	Outer diameter	Wall thickness	Outer diameter	Wall thickness	Avg	Max	Max	pos	Min	Min	pos	
										Measured	Speed												Side A
30.10 22:31	1548346	299	000000000000011733770	2 310 303 912	30	25	72	Pipe	20.0	996	82.19	32.035	0.614	32.035	0.610	260.1	273.2	5	249.8	6			
30.10 22:45	1548346	300	000000000000011733772	2 310 303 913	30	25	72	Pipe	20.0	992	82.19	32.050	0.607	32.040	0.605	267.5	275.0	5	260.6	5			
30.10 23:00	1548346	311	000000000000011733776	2 310 303 914	30	25	72	Pipe	20.0	0	82.19	32.035	0.614	32.045	0.613	264.1	271.4	5	257.0	5			
30.10 23:14	1548346	322	000000000000011733778	2 310 303 915	30	25	72	Pipe	20.0	999	82.19	32.040	0.605	32.040	0.616	263.0	269.6	5	253.4	5			
30.10 23:28	1548346	333	000000000000011733780	2 310 303 916	30	25	72	Pipe	20.0	1 003	82.18	32.050	0.608	32.050	0.604	263.2	267.8	5	249.8	6			
30.10 23:44	1548346	344	000000000000011733782	2 310 303 917	30	25	72	Pipe	20.0	1 001	82.19	32.040	0.611	32.060	0.610	263.4	273.2	5	251.6	6			
30.10 23:58	1548346	355	000000000000011733786	2 310 303 918	30	25	72	Pipe	20.0	988	82.12	32.040	0.612	32.050	0.615	268.2	278.6	5	262.4	5			
31.10 00:13	1548346	366	000000000000011733802	2 310 313 919	30	25	72	Pipe	20.0	990	82.02	32.035	0.611	32.035	0.606	265.8	271.4	5	257.0	5			
31.10 00:27	1548346	377	000000000000011733803	2 310 313 920	30	25	72	Pipe	20.0	985	82.02	32.040	0.615	32.040	0.613	258.3	266.0	5	251.6	6			
31.10 00:42	1548346	388	000000000000011733805	2 310 313 921	30	25	72	Pipe	20.0	988	82.02	32.040	0.613	32.045	0.616	260.3	266.0	5	249.8	6			
31.10 00:57	1548346	399	000000000000011733808	2 310 313 922	30	25	72	Pipe	20.0	999	82.02	32.030	0.614	32.060	0.631	263.5	273.2	5	251.6	5			
31.10 01:11	1548346	400	000000000000011733812	2 310 313 923	30	25	72	Pipe	20.0	1 008	82.02	32.050	0.625	32.055	0.625	265.7	275.0	5	249.8	5			
31.10 01:26	1548346	411	000000000000011733818	2 310 313 924	30	25	72	Pipe	20.0	1 005	82.02	32.060	0.617	32.060	0.628	269.1	278.6	5	255.2	6			
31.10 01:40	1548346	422	000000000000011733823	2 310 313 925	30	25	72	Pipe	20.0	1 001	82.02	32.060	0.622	32.050	0.617	266.4	278.6	5	251.6	6			
31.10 01:55	1548346	433	000000000000011733829	2 310 313 926	30	25	72	Pipe	20.0	992	82.02	32.055	0.617	32.050	0.613	266.4	273.2	5	258.8	5			
31.10 02:10	1548346	444	000000000000011733835	2 310 313 927	30	25	72	Pipe	20.0	994	82.02	32.045	0.614	32.050	0.617	271.5	278.6	5	266.0	5			
31.10 02:24	1548346	455	000000000000011733838	2 310 313 928	30	25	72	Pipe	20.0	1 003	82.02	32.055	0.617	32.060	0.625	254.3	260.6	5	237.2	7			
31.10 02:39	1548346	466	000000000000011733846	2 310 313 929	30	25	72	Pipe	20.0	1 008	82.02	32.060	0.618	32.060	0.625	263.2	276.8	5	251.6	6			
31.10 02:54	1548346	477	000000000000011733850	2 310 313 930	30	25	72	Pipe	20.0	1 014	82.02	32.055	0.623	32.055	0.625	279.7	285.8	5	271.4	5			
31.10 03:08	1548346	488	000000000000011733854	2 310 313 931	30	25	72	Pipe	20.0	1 010	82.02	32.055	0.614	32.050	0.615	275.8	282.2	5	267.8	5			
31.10 03:23	1548346	499	000000000000011733863	2 310 313 932	30	25	72	Pipe	20.0	1 003	82.02	32.050	0.608	32.060	0.603	269.7	275.0	5	264.2	5			
31.10 03:37	1548346	500	000000000000011733869	2 310 313 933	30	25	72	Pipe	20.0	1 019	82.02	32.060	0.620	32.055	0.619	264.2	269.6	5	244.4	6			
31.10 03:52	1548346	511	000000000000011733872	2 310 313 934	30	25	72	Pipe	20.0	1 010	82.02	32.060	0.612	32.055	0.610	263.1	267.8	5	258.8	5			
31.10 04:07	1548346	522	000000000000011733876	2 310 313 935	30	25	72	Pipe	20.0	1 012	82.02	32.060	0.615	32.055	0.609	263.7	269.6	5	258.8	5			
31.10 04:21	1548346	533	000000000000011733884	2 310 313 936	30	25	72	Pipe	20.0	1 016	82.02	32.050	0.617	32.065	0.627	265.4	273.2	5	257.0	5			
31.10 04:36	1548346	544	000000000000011733888	2 310 313 937	30	25	72	Pipe	20.0	1 008	82.02	32.065	0.619	32.055	0.614	266.7	278.6	5	260.6	5			
31.10 04:50	1548346	555	000000000000011733902	2 310 313 938	30	25	72	Pipe	20.0	1 003	82.02	32.050	0.610	32.050	0.612	263.9	269.6	5	253.4	5			
31.10 05:05	1548346	566	000000000000011733907	2 310 313 939	30	25	72	Pipe	20.0	1 014	82.02	32.055	0.614	32.055	0.611	261.4	266.0	5	257.0	5			
31.10 05:20	1548346	577	000000000000011733915	2 310 313 940	30	25	72	Pipe	20.0	1 008	82.02	32.045	0.609	32.035	0.608	258.1	262.4	5	253.4	5			
31.10 05:34	1548346	588	000000000000011733920	2 310 313 941	30	25	72	Pipe	20.0	1 021	82.02	32.045	0.609	32.055	0.613	254.9	258.8	5	249.8	5			
31.10 05:49	1548346	599	000000000000011733924	2 310 313 942	30	25	72	Pipe	20.0	1 008	82.02	32.065	0.638	32.060	0.626	254.5	262.4	5	239.0	6			
31.10 06:03	1548346	600	000000000000011733931	2 310 313 943	30	25	72	Pipe	20.0	1 003	82.02	32.070	0.625	32.045	0.622	252.6	258.8	5	248.0	5			
31.10 06:18	1548346	611	000000000000011733939	2 310 313 944	30	25	72	Pipe	20.0	1 003	82.02	32.045	0.634	32.045	0.644	248.5	253.4	5	244.4	5			
31.10 06:33	1548346	622	000000000000011733946	2 310 313 945	30	25	72	Pipe	20.0	1 003	82.02	32.030	0.629	32.070	0.640	247.8	253.4	5	240.8	5			
31.10 06:47	1548346	633	000000000000011733955	2 310 313 946	30	25	72	Pipe	20.0	988	82.02	32.045	0.626	32.045	0.625	254.8	262.4	5	248.0	5			
Sum										1 199.6	56 762												
Avg				2 310 308 360	30	25	72			19.0	979 79.25	32.048	0.617	32.051	0.619	264.0	277.8	5	251.2	5			
Max				2 310 313 946	30	25	72			30.8	1 541 82.19	32.075	0.638	32.070	0.644	321.6	482.0	7	271.4	8			
Min				2 310 303 890	30	25	72			0.5	0 55.12	32.020	0.601	32.020	0.602	247.5	253.4	2	221.0	3			
Count				63	63	63	63	63		63	58 63	57	57	57	57	57	63 63	63 63	63 63	63	63	63	

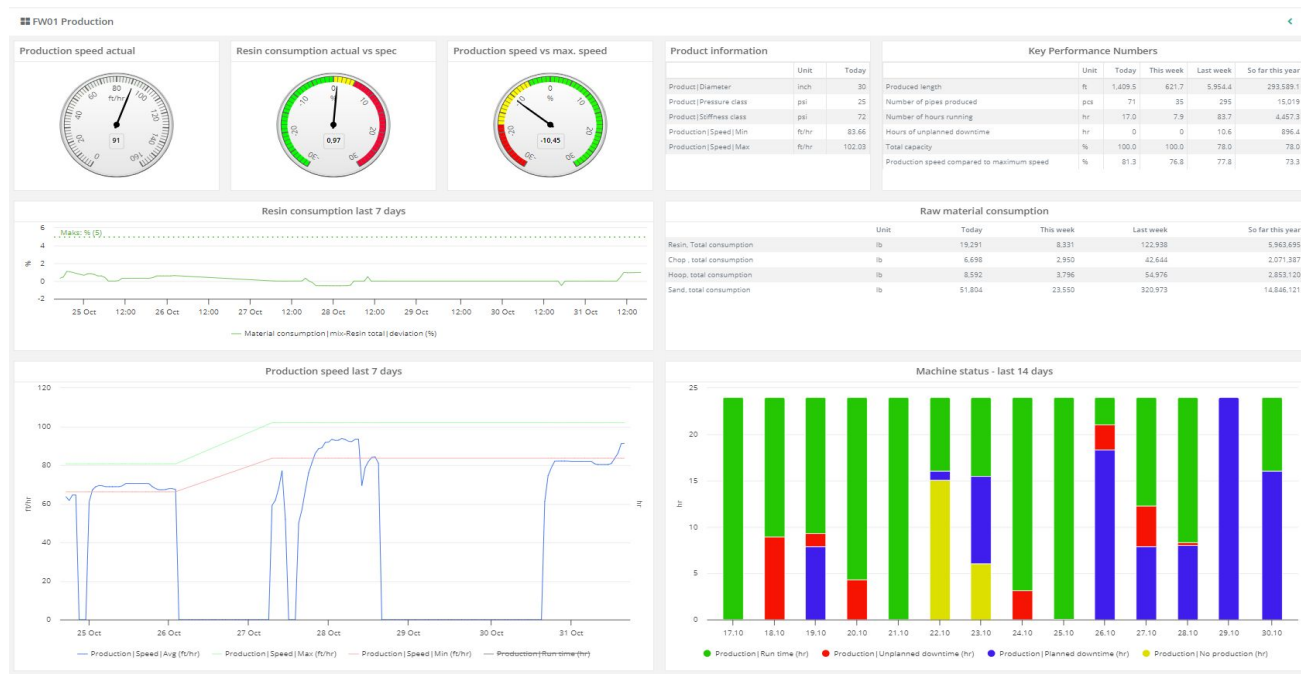
Hobas Pipe USA – Rapportering

- Gårsdagens produksjon sendes ut pr mail hver morgen kl 07
- Eget dashboard i produksjonen som viser sanntidsdata



Hobas Pipe USA – Rapportering

- Gårdagens produksjon sendes ut pr mail hver morgen kl 07
- Eget dashboard i produksjonen som viser sanntidsdata
- Dashbord som vises på infoskjermer i administrasjon ment for ledelse



Hobas Pipe USA – Rapportering

- Gårdagens produksjon sendes ut pr mail hver morgen kl 07
- Eget dashboard i produksjonen som viser sanntidsdata
- Dashboard som vises på infoskjermer i administrasjon ment for ledelse
- Dashboard for prosessoppfølging

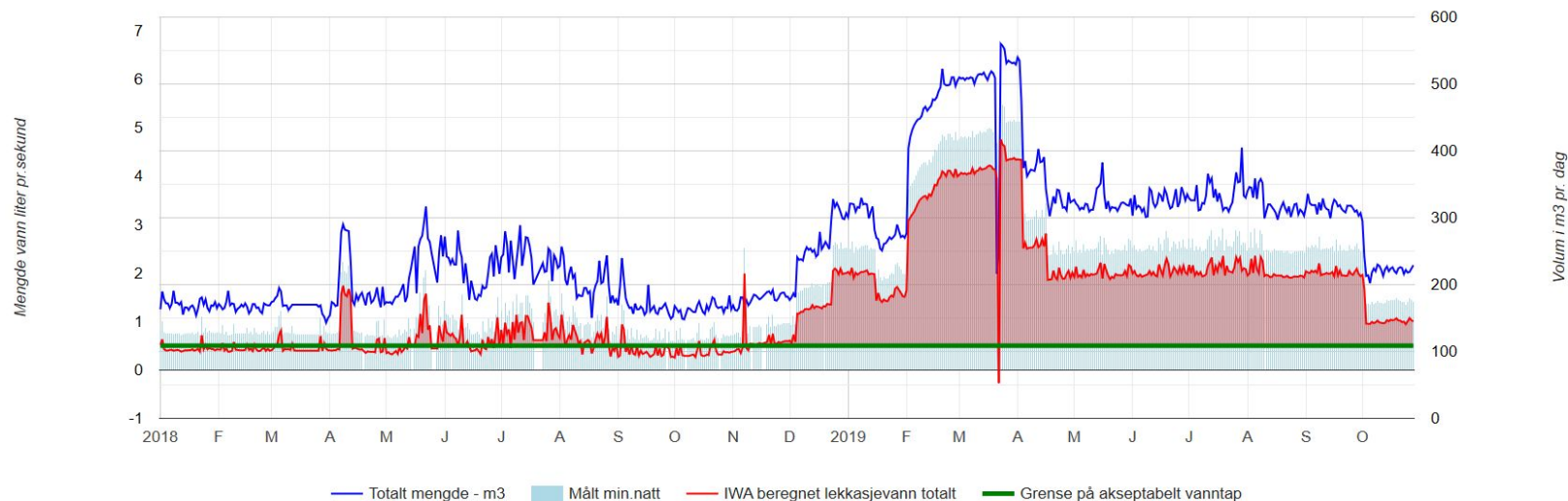


**“We have chosen
Gurusoft to digitize
our production”**

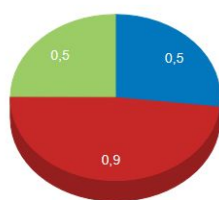
Joseph Moles
Production Manager

Eksempel – Lekkasjeleting – Vanntap

0701 Horten - Horten - Sone 11 - Apenes, Skoggata - Vanntapsanalyse

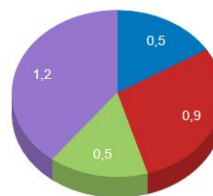


Målt minimum natt for perioden (l/s)



- Grense vanntap
- Må finnes
- Dråpetap, personforbruk, næringsuttak mm. Akseptert lekkasjevann og forbruk på natten

Fordeling på brutto levert vannmengde i perioden (l/s)

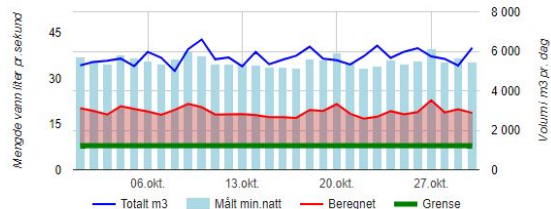


- Grense vanntap
- Må finnes
- Dråpetap, personforbruk, næringsuttak mm. Akseptert lekkasjevann og forbruk på natten
- Legalt forbruk på dagtid, Gjennomsnitt for perioden

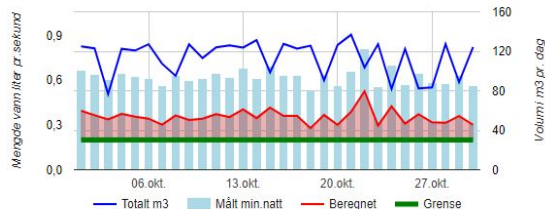
Vestfold Vann - Vanntapsanalyse - 0722 Nøtterøy



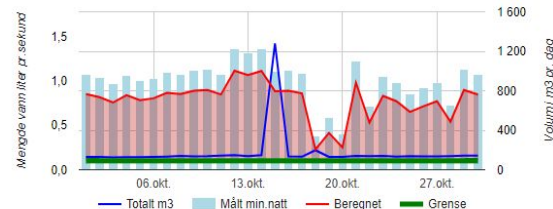
Nøtterøy kommune Totalt



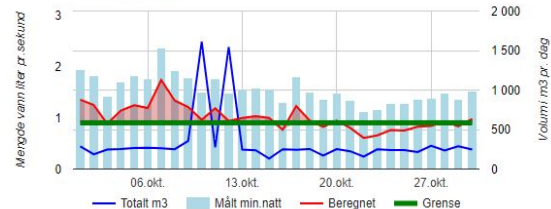
Sone 1 Midtåsen



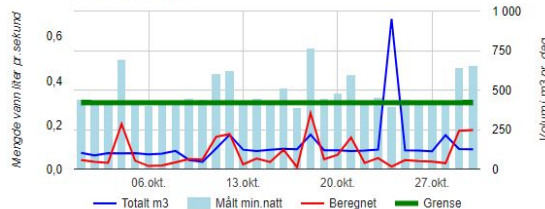
Sone 2 Rambergåsen



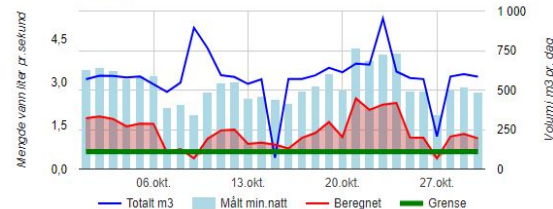
Sone 3 Munkerekk



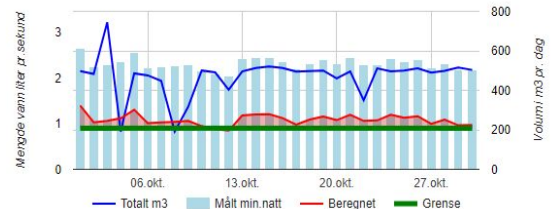
Sone 4 Grindstuveien



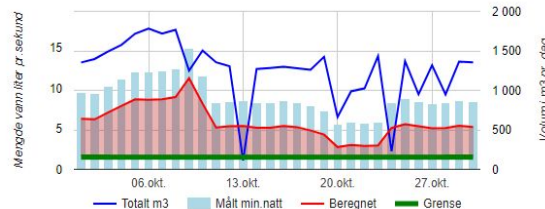
Sone 5 Teie



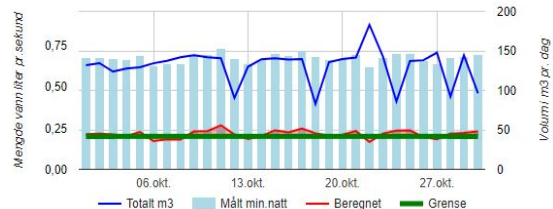
Sone 6 Vestskogen



Sone 7 Borgheim



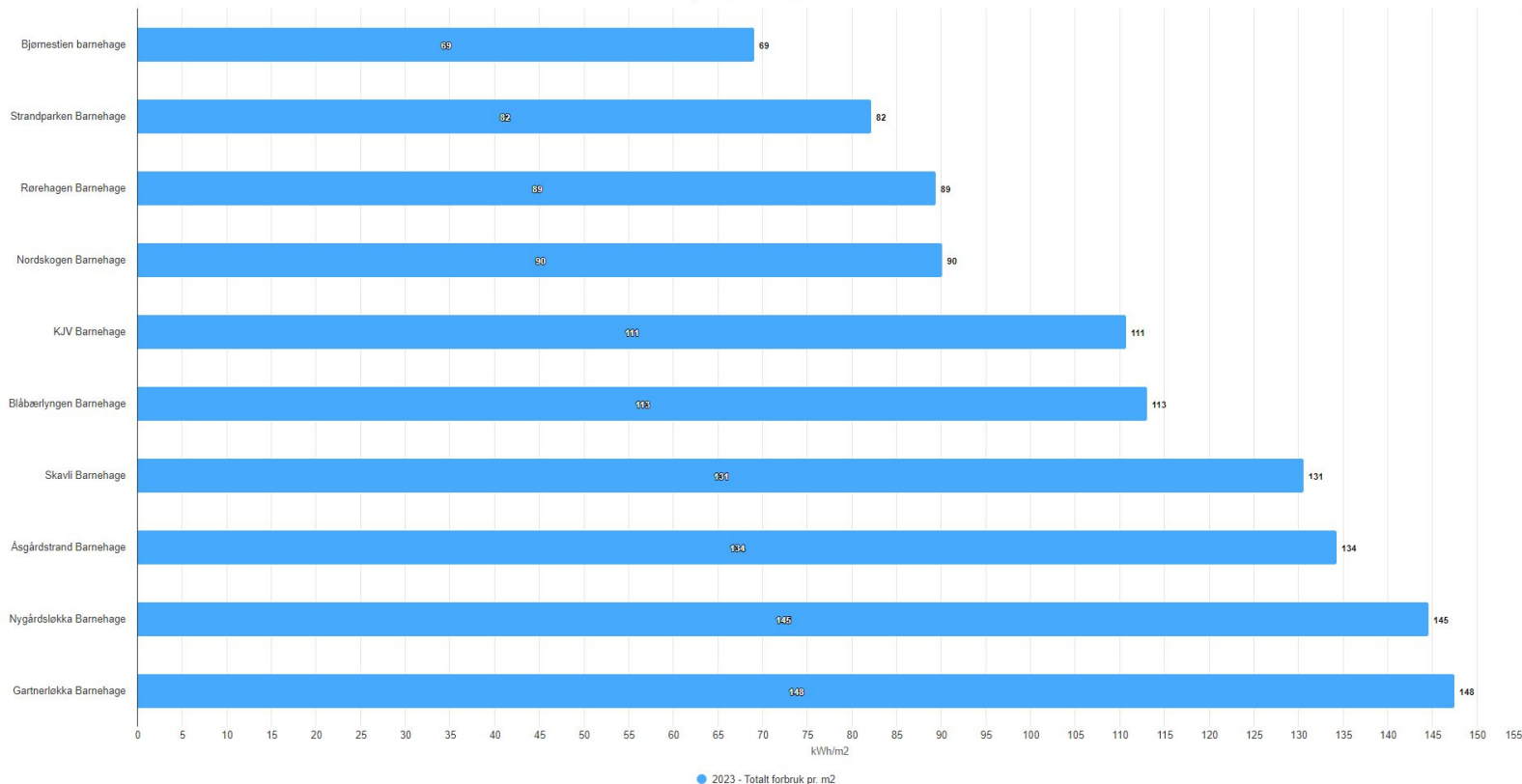
Sone 8 Hella



Eksempel EOS – Energiforbruk pr kvm sortert

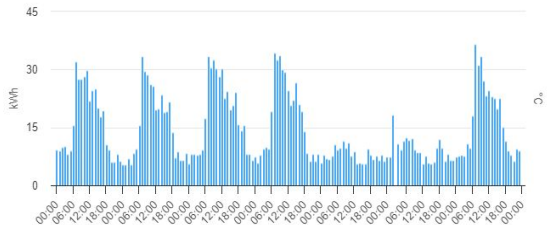
Forbruk per kvadratmeter

1. januar 2023 - 31. desember 2023



Eksempel EOS – Sammenstilt et bygg

Forbruk siste 7 dager Austrheim kystbarnehage

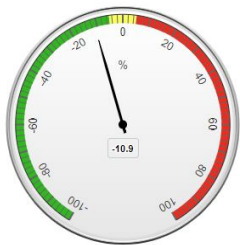


Årsforbruk Austrheim kystbarnehage

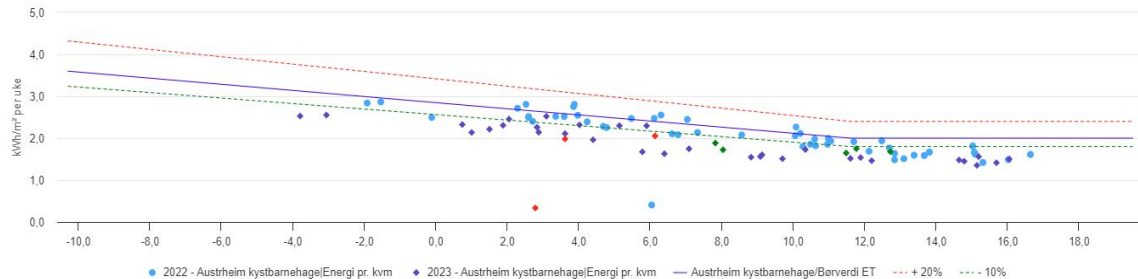


Avvik i %

1. jan. 2022 - 31. okt. 2022, 1. jan. 2023 - 31. okt. 2023



ET kurve



Eksempel VA – Prøvetakingsplan

2021 - PRØVETAKINGSPLAN for Fuglevik RA

Skjul alt Velg kolonner Siste 12 uker Uke 1-17 Uke 18-34 Uke 35-52 1. halvår 2. halvår Hele året

Prøvested		januar				februar				mars					april				mai				juni				
	Navn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	Fuglevik RA, innløp døgn	D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5	D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5
2	Fuglevik RA, utløp døgn	D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5	D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5		D 5/5
3	Fuglevik RA, innløp uke							TM 7/7									MG 41/41										TM 7/7
4	Fuglevik RA, utløp uke							TM 7/7									MG 41/41										TM 7/7
5	Fuglevik RA, utløp stikkprøve							HG 1/1									DE 2/2										HG 1/1
6	Fuglevik RA, utløp stikkprøve							HG 1/1									DE 2/2										HG 1/1
7	Fuglevik RA, slam	MA 34/34				MA 34/34				SU 37/37					MA 34/34				MA 34/34				SU 34/37				
8	Fuglevik RA, slam stikkprøver	FR 4/4				FR 4/4				FR 4/4					FR 4/4				FR 4/4				FR 4/4				
9	Fuglevik RA, slamlager	SL 4/4				SL 4/4				SL 4/4					SL 4/4				SL 4/4				SL 4/4				



BRUKERFORUM 2023