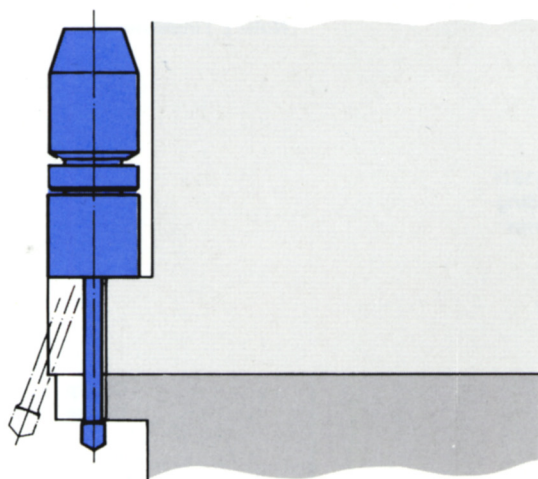
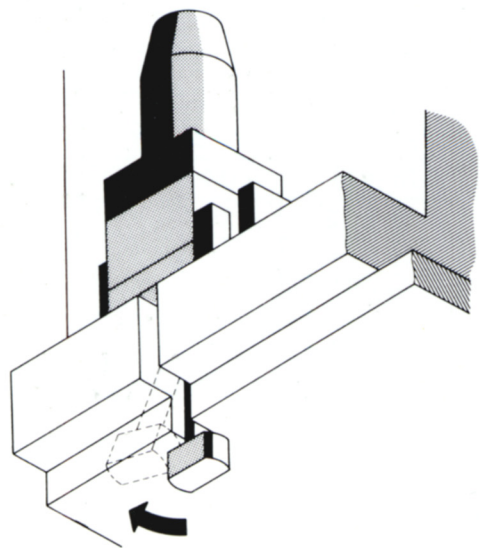


A Swing Clamp of unsurpassed strength and reliability.



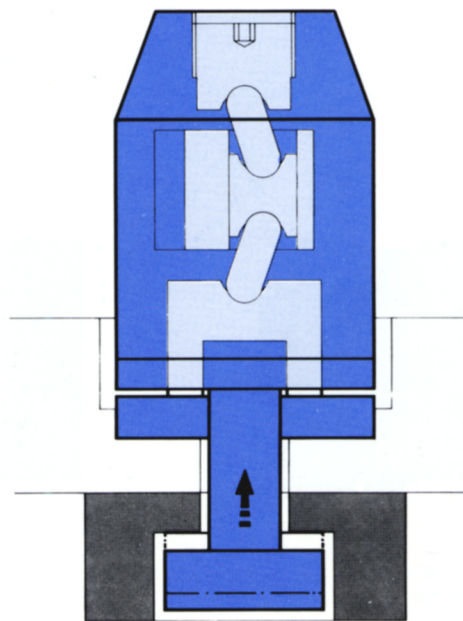
These units are mounted on the Press Slide and swing into position through slot in the die. The swing-in action of the Tie-Rod and Clamping are controlled automatically, and occur in series. Once the unit is clamped, through its mechanical toggle system, it becomes completely hydraulic independent and all line pressures go to zero.

While clamped, the unit monitors clamp force and thereby can detect such irregularities as tool failure, die shoe compression, tie rod failure, etc. A drop in clamp force beyond a pre-set limit will result in an immediate press shut-down.

Finally, due to its mechanically rigid clamp action, the tool remains positively fixed to ensure the highest possible level of stamping precision.

Features:

- Clamp force 11 and 22 tons
- Purely mechanical clamping — hydraulically activated
- Complete independence from hydraulics during press operation
- Low operational hydraulic pressure of 1750 psi (only during activation)
- Fully automatic swing action and clamping
- Unsurpassed rigidity and operational safety
- Proven reliability in automotive plants throughout the world



Technical Data

Model		SSE 10	SSEV 10	SSEA 10	SSE 20	SSEV 20	SSEA 20
Clamp Force	(tons)	11	11	11	22	22	22
Setting Pressure	(psi)	1300-1450	1300-1450	1300-1450	1300-1450	1300-1450	1300-1450
Operating Pressure	min. (psi)	1600	1600	1600	1600	1600	1600
	max. (psi)	2000	2000	2000	2000	2000	2000
Holding Capacity-Maximum	(tons)	14	14	14	28	28	28
Clamping Stroke	inches (mm)	.18 (4.5)	.14 (3.5)	.12 (3.0)	.18 (4.5)	.14 (3.5)	.12 (3.0)
Clamping Tolerance	inches (mm)	±.008 (±0.2)	±.020 (±0.5)	±.20 (±5)	±.008 (±0.2)	±.020 (±0.5)	±.20 (±5)
Swing-Angle (adjustable) max.		20°	20°	20°	20°	20°	20°
Oil Volume Required per Operation	Clamp	7.02	7.02	5.4	9.09	9.09	8.24
	Unclamp	4.94	4.94	5.4	8.46	8.46	8.91
Oil Flow Required per Unit*	(gal/min)	.25 - .375	.25 - .375	.25 - .375	.375 - .500	.375 - .500	.375 - .500
Hydraulic Fittings	(adaptable to NPT 1/4)	R 1/4	R 1/4	R 1/4	R 1/4	R 1/4	R 1/4

Hydraulic Fluid Viscosity = 25-60 cSt/40° C — Filter = 20-25 μ m

*If a pump of greater flow capacity than required is used, it is necessary to throttle the flow.

Safety Features — Clamp Force Monitoring

A safety circuit is monitored by Optima's internal "Activator" assembly. Any reduction in clamp force, past a pre-set limit, automatically trips a limit switch and results in a press shut-down.

Limit Switch: Switch Rating 5A/250V

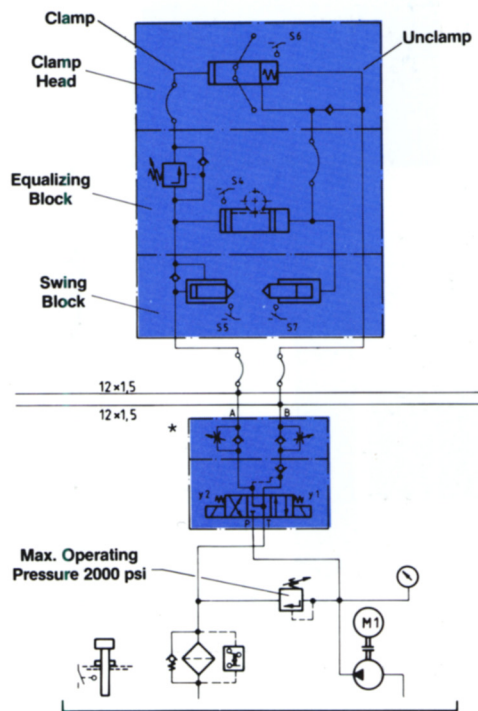
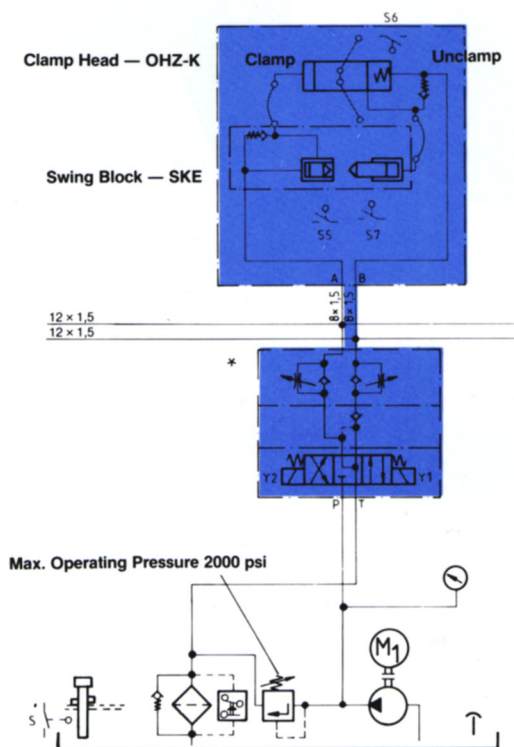
Inductive 3A/ 30V

Resistive 3A 30v

If a water and oil tight installation is desired, we would recommend that limit switch fittings be used in conjunction with a protective hose.

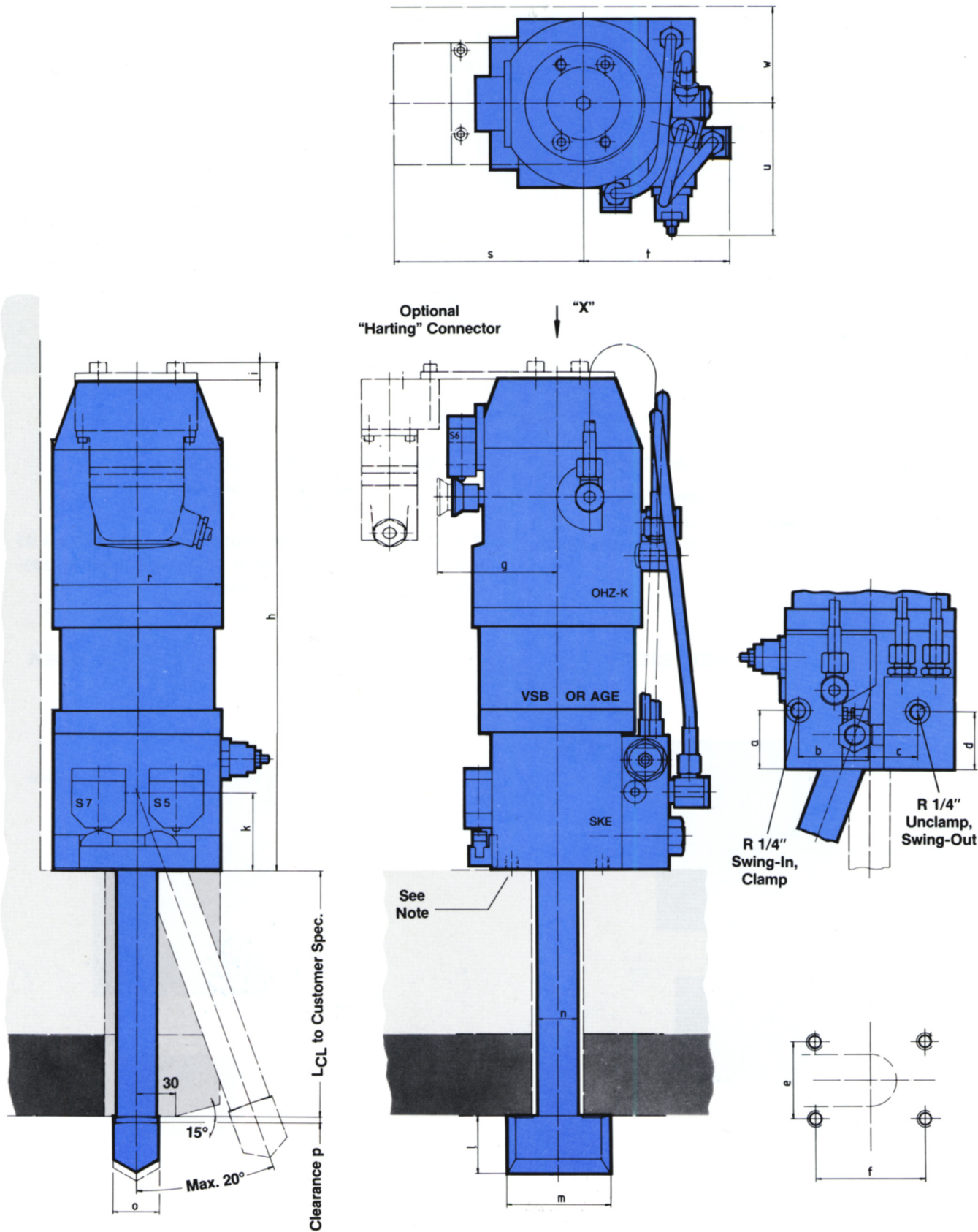
SSE, SSEV

SSEA

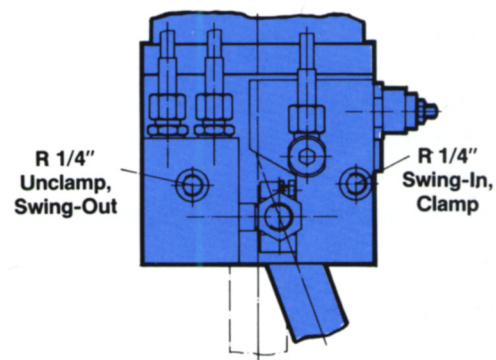
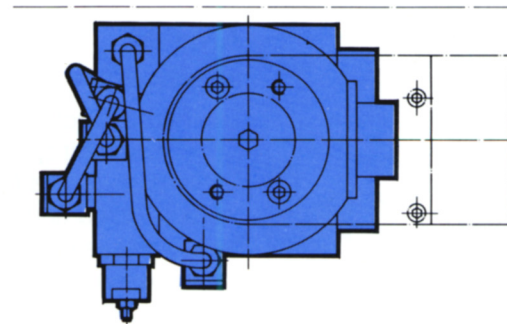
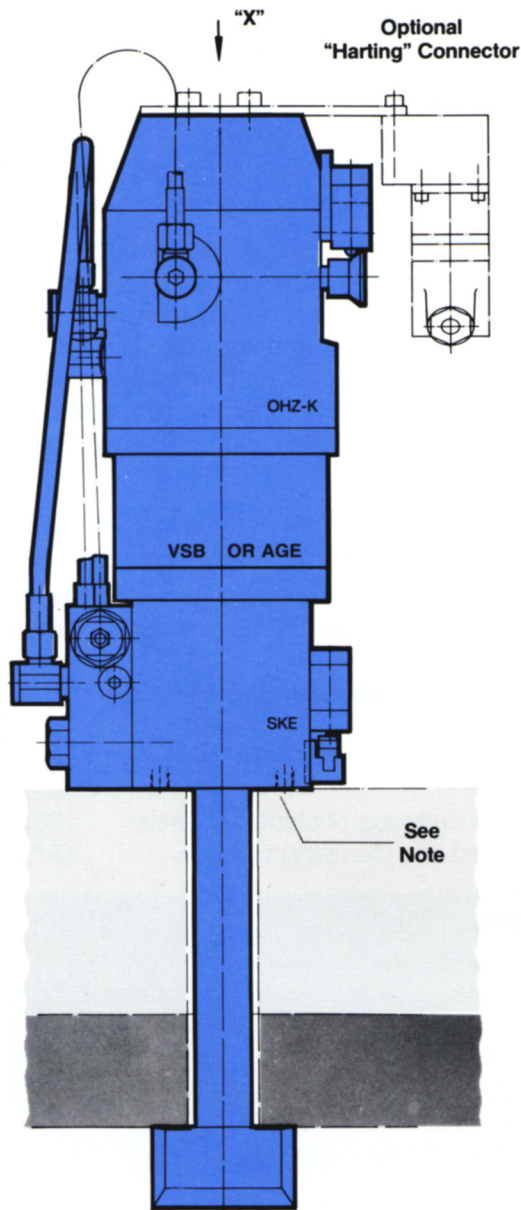


Technical Data

Left Version — All limit switches and plug connectors are on the left.



Right Version — All limit switches and plug connectors are on the right.



NOTE

Units are secured by bolting into taped holes in the swing-out block.

Top-down bolting can be achieved with an optional .79" adapter plate. (Note that overall height "h" is increased by .79" also.)

Model	Clamp Force (tons)	Holding Capacity (tons)	Dimensions																			
			a	b	c	d	e	f	g	h	i	k	l	m	n	o	p	r	s	t	u	w min
SSE 10	11	14	1.77 (45)	2.20 (56)	1.42 (36)	1.43 (44)	2.76 (70)	3.15 (80)	3.74 (95)	13.70 (348)	.43 (11)	2.36 (60)	1.77 (45)	3.15 (80)	1.26 (32)	1.42 (36)	.18 (4.5)	5.12 (130)	6.02 (153)	4.72 (120)	3.54 (90)	2.95 (75)
SSEV 10	11	14	1.77 (45)	2.20 (56)	1.42 (36)	1.43 (44)	2.76 (70)	3.15 (80)	3.74 (95)	16.85 (428)	.43 (11)	2.36 (60)	1.77 (45)	3.15 (80)	1.26 (32)	1.42 (36)	.14 (3.5)	5.12 (130)	6.02 (153)	4.72 (120)	3.54 (90)	2.95 (75)
SSEA 10	11	14	1.77 (45)	2.20 (56)	1.42 (36)	1.43 (44)	2.76 (70)	3.15 (80)	3.74 (95)	19.13 (486)	.47 (12)	2.36 (60)	1.77 (45)	3.15 (80)	1.26 (32)	1.42 (36)	.12 (3.0)	5.12 (130)	6.02 (153)	4.69 (119)	3.54 (90)	2.95 (75)
SSE 20	22	28	1.85 (47)	2.74 (69.5)	1.89 (48)	1.89 (48)	3.94 (100)	4.92 (125)	3.94 (100)	15.51 (394)	.43 (11)	3.03 (77)	1.97 (50)	3.86 (98)	1.26 (32)	1.65 (42)	.18 (4.5)	6.10 (155)	6.50 (165)	5.91 (150)	5.12 (130)	3.54 (90)
SSEV 20	22	28	1.85 (47)	2.74 (69.5)	1.89 (48)	1.89 (48)	3.94 (100)	4.92 (125)	3.94 (100)	18.23 (463)	.43 (11)	3.03 (77)	1.97 (50)	3.86 (98)	1.26 (32)	1.65 (42)	.14 (3.5)	6.10 (155)	6.50 (165)	5.91 (150)	5.12 (130)	3.54 (90)
SSEA 20	22	28	1.85 (47)	2.74 (69.5)	1.89 (48)	1.89 (48)	3.94 (100)	4.92 (125)	3.94 (100)	21.02 (534)	.47 (12)	3.03 (77)	1.97 (50)	3.86 (98)	1.26 (32)	1.65 (42)	.12 (3.0)	6.10 (155)	6.50 (165)	5.51 (140)	3.54 (90)	3.54 (90)

Dimensions shown in inches () millimeters.